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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,853	10/28/2003	Krishna K. Pappu	65074.US	6739
78352 7590 02/18/2010 LNG/LSI JOINT CUSTOMER C/O LUEDEKA, NEELY & GRAHAM, P.C. P.O. BOX 1871 KNOXVILLE, TN 37901				
EXAMINER PARIHAR, SUCHIN				
ART UNIT 2825		PAPER NUMBER		
NOTIFICATION DATE 02/18/2010		DELIVERY MODE ELECTRONIC		

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KRISHNA K. PAPPU, HUNAID HUSSAIN, and
ARUN GUNDA

Appeal 2009-003900
Application 10/695,853
Technology Center 2800

Decided: February 16, 2010

Before, ROBERT E. NAPPI, THOMAS S. HAHN and
ELENI MANTIS MERCADER, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the final rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm the Examiner's rejection of these claims.

INVENTION

The invention is directed to a method of testing integrated circuit devices with synchronously clocked elements by grouping scan flops. *See* Spec: 1-5. Claim 1 is representative of the invention and reproduced below:

1. A method of grouping cells for scan testing comprising steps of:
 - (a) receiving as input a representation of an integrated circuit design;
 - (b) initializing a corresponding list of cells for each of a plurality of common signal domains in the integrated circuit design, each corresponding list of cells created as an empty list;
 - (c) selecting a cell in one of the common signal domains that is not included in a corresponding list of cells for any of the common signal domains;
 - (d) tracing a net from an input port of the selected cell to a signal driver;
 - (e) inserting the selected cell in the corresponding list of cells for the common signal domain associated with the signal driver;
 - (f) tracing the net to an input port of each cell connected to the signal driver; and
 - (g) inserting each cell traced from the net to an input port of the cell in the corresponding list of cells for the common signal domain associated with the signal driver.

REFERENCES

Beausang	US 5,828,579	Oct. 27, 1998
Nadeau-Dostie	US 6,457,161 B1	Sep. 24, 2002

REJECTION AT ISSUE

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Beausang in view of Nadeau-Dostie. Ans. 3-8.

ISSUES

Rejection of claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over Beausang in view of Nadeau-Dostie
Independent Claims 1, 10, 19, and 20

Appellants argue on pages 6-10 of the Appeal Brief that the Examiner's rejection of claims 1, 10, 19, and 20 is in error. Appellants argue that it is not obvious to combine Beausang with Nadeau-Dostie. App. Br. 7. Additionally, Appellants argue that neither of the references discloses "tracing the net to an input port of each cell connected to the signal driver and inserting each cell traced from the net to an input port of the cell in the corresponding list of cells for the common signal domain associated with the signal driver," as required in independent claims 1, 10, 19, and 20. App. Br. 9.

Thus, Appellants' contentions with respect to claims 1, 10, 19, and 20 present us with two issues. (1) Has the Examiner erred in combining Beausang with Nadeau-Dostie? (2) Has the Examiner erred in finding that the combination of Beausang with Nadeau-Dostie discloses tracing the net to an input port of each cell connected to the signal driver and inserting each

cell traced from the net to an input port of the cell in the corresponding list of cells for the common signal domain associated with the signal driver?

Dependent Claims 2-9 and 11-18

Appellants argue on page 10 of the Appeal Brief that the Examiner's rejection of claims 2-9 and 11-18 is in error. Dependent claims 2-9 and 11-18 depend upon and contain similar limitations to independent claims 1 and 10 (respectively). Appellants present the same arguments discussed above with respect to independent claims 1 and 10. App. Br. 10. Thus, Appellants' arguments with respect to the Examiner's rejection of claims 2-9 and 11-18 present us with the same issues as claims 1 and 10.

PRINCIPLES OF LAW

Office personnel must rely on Appellants' disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc). "[I]nterpreting what is *meant* by a word *in* a claim is not to be confused with adding an extraneous limitation appearing in the specification, which is improper." *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1348 (Fed. Cir. 2002) (internal quotation marks and citations omitted).

ANALYSIS

Rejection of claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over Beausang in view of Nadeau-Dostie

Independent Claims 1, 10, 19, and 20

Appellants' arguments have not persuaded us of error in the Examiner's rejection of independent claims 1, 10, 19, and 20. Independent

claim 1 recites “(d) tracing a net from an input port of the selected cell to a signal driver; (e) inserting the selected cell in the corresponding list of cells for the common signal domain associated with the signal driver; [and] (f) tracing the net to an input port of each cell connected to the signal driver.” Independent claims 10, 19, and 20 contain similar limitations. The Examiner finds that the tracing step was not *specifically* taught by the primary reference Beausang, but is taught by the secondary reference Nadeau-Dostie. Ans. 4. The Examiner finds that the combination of these references “would provide for the necessary identification of the scan cells for selection and further insertion into the lists (i.e. for proper partitioning of scan cells into subgroups) that correspond to a particular common signal domain of the method/system of Beausang.” Ans. 4. Appellants use this motivation to argue that “the rejection admits” Beausang does not disclose “partitioning of scan cells into subgroups that correspond to a common signal domain.” App. Br. 7. Appellants additionally argue that if this were true, that Beausang would not meet the enablement requirements under 35 U.S.C. § 112. App. Br. 7. However, since Beausang is a patent, Beausang is presumed to be enabled and this argument would not be sufficient. App. Br. 7. As a result, Appellants argue that there is no reasonable suggestion to modify Beausang by Nadeau-Dostie. App. Br. 7. Therefore, Appellants are essentially arguing that the obviousness rejection is improper because the Examiner should have made an anticipation rejection, rather than an obviousness rejection. We are not persuaded by this argument.

Contrary to Appellants’ arguments, the Examiner did not find that the Beausang reference did not disclose a method of determining which cells have a common signal domain associated with a driver. Rather, the

Examiner merely stated that Beausang did not “*specifically* teach tracing steps” (emphasis added). Ans. 4. The Examiner cited a portion of the Beausang reference where this step is taught and provided a secondary reference Nadeau-Dostie to show that tracing was known in the art. Ans. 4. Therefore, while the secondary reference may not have been necessary, it was provided as further evidence that the ability to trace a net to and from an input port of each cell connected to the signal driver was known.

Further, even if an anticipation rejection would have been more proper, the obviousness rejection is still appropriate since “a rejection for obviousness under § 103 can be based on a reference which happens to anticipate the claimed subject matter.” *In re Meyer*, 599 F.2d 1026, 1031 (CCPA 1979). In addition, the Federal Circuit has found that “anticipation is the epitome of obviousness.” *In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002). Therefore, Appellants’ arguments are not found to be persuasive.

Appellants additionally argue that neither Beausang nor Nadeau discloses “tracing the net to an input port of each cell connected to the signal driver and inserting each cell traced from the net to an input port of the cell in the corresponding list of cells for the common signal domain associated with the signal driver.” App. Br. 9. The Examiner finds that Nadeau-Dostie discloses the tracing step required by the claim. Ans. 4. The Examiner also finds that Beausang discloses the insertion step. Ans. 4. Appellants have not specified why these findings by the Examiner are in error.

Appellants also argue that even if these steps were taught, there would be no benefit to combine the references. App. Br. 9. However, as noted above, the Examiner has found a motivation to combine the references (i.e.,

proper partitioning of scan cells into subgroups). Ans. 4. Thus, Appellants' statements are mere conclusions that the Examiner's findings and reasoning are unsupported, but do not cite evidence or further explanation to support the conclusions. We consider such conclusory assertions without supporting evidence, explanation, or analysis particularly pointing out errors in the Examiner's findings and reasoning to fall short of persuasively rebutting the Examiner's prima facie case of obviousness. *See Oetiker*, 977 F.2d at 1445.

As such, for the reasons stated above, we sustain the Examiner's rejection of claims 1, 10, 19, and 20.

Dependent Claims 2-9 and 11-18

Appellants' arguments have not persuaded us of error in the Examiner's rejection of claims 2-9 and 11-18. Dependent claims 2-9 and 11-18 depend upon and contain similar limitations discussed *supra* with respect to independent claims 1 and 10. Appellants' arguments present the same issues discussed with respect to independent claims 1 and 10. App. Br. 10. Therefore, we sustain the Examiner's rejection of claims 2-9 and 11-18 for the reasons discussed *supra* with respect to claims 1 and 10.

CONCLUSIONS

Appellants have not shown that the Examiner erred in combining Beausang with Nadeau-Dostie.

Appellants have not shown that the Examiner erred in finding that the combination of Beausang with Nadeau-Dostie discloses tracing the net to an input port of each cell connected to the signal driver and inserting each cell traced from the net to an input port of the cell in the corresponding list of cells for the common signal domain associated with the signal driver.

SUMMARY

The Examiner's decision to reject claims 1-20 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136 (a)(1)(iv).

Appeal 2009-003900
Application 10/695,853

AFFIRMED

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